

Vertical recording medium with thin soft magnetic film

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Abstract

A vertical magnetic recording medium includes a soft magnetic film formed on a substrate, and a vertical magnetization film formed on the soft magnetic film. $\mu \cdot \Delta b \geq 1000$, when μ is a permeability of the soft magnetic film, and Δb [nm] is a film thickness of the soft magnetic film. The permeability μ of the soft magnetic film is $5 \leq \mu \leq 200$, and the film thickness Δb of the soft magnetic film is equal to or less than 500 nm. Also, vertical magnetic anisotropy energy K_u [erg/cc] of the vertical magnetization film is $1 \times 10^7 \leq K_u \leq 7 \times 10^8$, and coercive force H_c [kOe] of the vertical magnetization film in the vertical direction to a surface of the vertical magnetization film is $5 \leq H_c \leq 10$

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